



**Billing Code: 4510.43-P**

**DEPARTMENT OF LABOR**

**Mine Safety and Health Administration**

**Petitions for Modification of Application of Existing Mandatory Safety Standards**

**AGENCY:** Mine Safety and Health Administration, Labor.

**ACTION:** Notice.

**SUMMARY:** Section 101(c) of the Federal Mine Safety and Health Act of 1977 and Title 30 of the Code of Federal Regulations, 30 CFR Part 44, govern the application, processing, and disposition of petitions for modification. This notice is a summary of petitions for modification submitted to the Mine Safety and Health Administration (MSHA) by the parties listed below.

**DATES:** All comments on the petitions must be received by the Office of Standards, Regulations, and Variances on or before [Insert date 30 days from the date of publication in the FEDERAL REGISTER].

**ADDRESSES:** You may submit your comments, identified by “docket number” on the subject line, by any of the following methods:

1. **Electronic Mail:** [zzMSHA-comments@dol.gov](mailto:zzMSHA-comments@dol.gov). Include the docket number of the petition in the subject line of the message.

2. Facsimile: 202-693-9441.

3. Regular Mail or Hand Delivery: MSHA, Office of Standards, Regulations, and Variances, 1100 Wilson Boulevard, Room 2350, Arlington, Virginia 22209-3939, Attention: Sheila McConnell, Acting Director, Office of Standards, Regulations, and Variances. Persons delivering documents are required to check in at the receptionist's desk on the 21<sup>st</sup> floor. Individuals may inspect copies of the petitions and comments during normal business hours at the address listed above.

MSHA will consider only comments postmarked by the U.S. Postal Service or proof of delivery from another delivery service such as UPS or Federal Express on or before the deadline for comments.

**FOR FURTHER INFORMATION CONTACT:** Barbara Barron, Office of Standards, Regulations, and Variances at 202-693-9447 (Voice), [barron.barbara@dol.gov](mailto:barron.barbara@dol.gov) (E-mail), or 202-693-9441 (Facsimile). [These are not toll-free numbers.]

## **SUPPLEMENTARY INFORMATION:**

### **I. Background**

Section 101(c) of the Federal Mine Safety and Health Act of 1977 (Mine Act) allows the mine operator or representative of miners to file a petition to modify the application of any mandatory safety standard to a coal or other mine if the Secretary of Labor determines that:

1. An alternative method of achieving the result of such standard exists which will at all times guarantee no less than the same measure of protection afforded the miners of such mine by such standard; or

2. That the application of such standard to such mine will result in a diminution of safety to the miners in such mine.

In addition, the regulations at 30 CFR 44.10 and 44.11 establish the requirements and procedures for filing petitions for modification.

## **II. Petitions for Modification**

Docket Number: M-2015-007-C.

Petitioner: White Oak Resources, LLC, P.O. Box 339, McLeansboro, Illinois 62859.

Mine: White Oak Mine No. 1, MSHA I.D. No. 11-03203, located in Hamilton County, Illinois.

Regulation Affected: 30 CFR 75.1700 (Oil and gas wells).

Modification Request: The petitioner requests a modification of the existing standard to permit mining within a 300 foot diameter of abandoned oil and gas wells, and to allow mining through abandoned oil and gas wells.

1. A safety barrier of 300 feet diameter (150 feet between any mined area and a well) will be maintained around all oil and gas wells, to include all active, inactive, abandoned, shut-in, and previously plugged wells and including water injection wells until approval to proceed has been obtained from the District Manager (DM).

2. The petitioner proposes, prior to mining through any oil or gas well at its White Oak Mine No. 1, to provide the DM a sworn affidavit or declaration stating that all mandatory procedures for cleaning out, preparing, and plugging each gas or oil well have been completed. The declaration will be accompanied by down-hole logs and any other information that the DM may request.

(a) The petitioner proposes to use the following procedures when cleaning out and preparing oil and gas wells prior to plugging or replugging:

(1) Clean out the well from the surface to at least 200 feet below the base of the lowest mineable coal seam. The DM will be provided with all information it possesses concerning the geological nature of the strata and the pressure of the well. All material will be removed from the entire diameter of the well, wall to wall.

(2) Prepare down-hole logs for each well. The logs will consist of a caliper survey and be suitable for determining the top, bottom, and thickness of all coal seams and potential hydrocarbon-producing strata and the location for the bridge plug. In addition a journal will be maintained describing the depth and nature of each material encountered; bit size and type used to drill each portion of the hole; length and type of each material used to plug the well; length of casing(s) removed, perforated, or ripped, or left in place, any sections where casing was cut or milled; and other pertinent information concerning cleaning and sealing the well. Invoices, work-orders, and other records relating to all work on the well will be maintained as part of this journal and provided to MSHA on request.

(3) When cleaning out the well, a diligent effort will be made to remove all of the casing in the well or, if it is not possible to remove all of the casing, fill the annulus between the casings and the well walls with expanding cement (minimum 0.5 percent expansion on setting) and ensure that these areas contain no voids. If the casing cannot be removed it will be cut or milled at all mineable coal seam levels. Any remaining casings will be perforated or ripped at least every 50 feet from at least 200 feet below the base of the lowest mineable coal seam up to 100 feet above the uppermost mineable coal

seam. When multiple casing and tubing strings are present in the coal horizon(s), perforate or rip any casing that remains and fill with expanding cement. Keep an acceptable casing bond log for each casing and tubing string used in lieu of ripping or perforating multiple strings.

(4) Place a mechanical bridge plug in the well, if a cleaned-out well emits excessive amounts of gas. Place the mechanical bridge plug in a competent stratum at least 200 feet below the base of the lowest mineable coal seam, but above the top of the uppermost hydrocarbon-producing stratum.

(5) If the uppermost hydrocarbon-producing stratum is within 300 feet of the base of the lowest mineable coal seam, properly place mechanical bridge plugs to isolate the hydrocarbon-producing stratum from the expanding cement plug. Place a minimum of 200 feet of expanding cement below the lowest mineable coal seam.

(b) The petitioner proposes to use the following procedures for plugging or replugging oil or gas wells to the surface:

(1) Pump expanding cement slurry down the well to form a plug that runs from at least 200 feet below the base of the lowest mineable coal seam to the surface. Place the expanding cement in the well under a pressure of at least 200 pounds per square inch. Portland cement or a lightweight cement mixture may be used to fill the area from 100 feet above the top of the uppermost mineable coal seam.

(2) Embed steel turnings or other small magnetic particles in the top of the cement near the surface to serve as a permanent magnetic monument of the well. In the alternative, extend a 4½-inch or larger casing, set in cement, at least 36 inches above the ground level with the American Petroleum Institute (API) well number either engraved or

welded on the casing. When the hole cannot be marked with a physical monument (i.e., prime farmland), use high-resolution GPS coordinates (one-half meter resolution) to locate the hole.

c. The petitioner proposes to use the following procedures for plugging or replugging oil and gas wells for subsequent use as degasification boreholes:

(1) Set a cement plug in the well by pumping expanding cement slurry down the tubing to provide at least 200 feet of expanding cement below the lowest mineable coal seam. Place the expanding cement in the well under a pressure of at least 200 pounds per square inch. Extend the top of the expanding cement at least 30 feet above the top of the coal seam being mined.

(2) Securely grout a suitable casing into the bedrock of the upper portion of the degasification well to protect it. The remainder of this well may be cased or uncased.

(3) Fit the top of the degasification casing with a wellhead, equipped as required by the DM in the approved ventilation plan. Such equipment may include check valves, shut-in valves, sampling ports, flame arrestor equipment, and security fencing.

(4) Operation of the degasification well will be addressed in the approved ventilation plan. This may include periodic tests of methane levels and limits on the minimum concentrations that may be extracted.

(5) After the area of the coal mine that is degassed by a well is sealed or the coal mine is abandoned, seal the degas holes using the following procedures:

(i) Insert a tube to the bottom of the drill hole or, if not possible, to at least 100 feet above the Herrin No. 6 coal seam. Remove any blockage to ensure that the tube is inserted to this depth.

(ii) Set a cement plug in the well by pumping Portland cement or a lightweight cement mixture down the tubing until the well is filled to the surface.

(iii) Embed steel turnings or other small magnetic particles in the top of the cement near the surface to serve as a permanent magnetic monument of the well. In the alternative, extend a 4½-inch or larger casing, set in cement, at least 36 inches above the ground level with the API well number engraved or welded on the casing.

d. The petitioner proposes to use the following mandatory alternative procedures for preparing and plugging or replugging oil or gas wells that cannot be cleaned out:

(1) Drill a hole adjacent and parallel to the well to a depth of at least 200 feet below the lowest mineable coal seam.

(2) Locate any casing that may remain in the well using a geophysical sensing device.

(3) If the well contains casings, drill into the well from the parallel hole and perforate or rip all casings at intervals of at least 5 feet from 10 feet below the coal seam to 10 feet above the coal seam. Beyond that distance, perforate or rip all casings at least every 50 feet from at least 200 feet below the base of the lowest mineable coal seam up to 100 feet above the seam being mined. Fill the annulus between the casings and between the casings and the well wall with expanding cement (minimum of 0.5 percent expansion on setting), and ensure that these areas contain no voids. When multiple casing and tubing strings are present in the coal horizons, rip or perforate any casing that remains and fill with expanding cement. Provide an acceptable casing bond log for each casing and tubing used in lieu of ripping or perforating multiple strings.

(4) Use a horizontal hydraulic fracturing technique to intercept the original well. Fracture the original well in at least six places from at least 200 feet below the base of the lowest mineable coal seam to a point at least 50 feet above the seam being mined, at intervals to be agreed on by the petitioner and the DM after considering the geological strata and the pressure within the well. Pump expanding cement into the fractured well in sufficient quantities and in a manner that fills all intercepted voids.

(5) Prepare down-hole logs for each well. The logs will consist of a caliper survey and be suitable for determining the top, bottom, and thickness of all coal seams and potential hydrocarbon-producing strata and the location for the bridge plug. The operator may obtain the logs from the adjacent hole rather than the well if the condition of the well makes it impractical to insert the equipment necessary to obtain the log. Maintain a journal describing the depth of each material encountered; the nature of each material encountered; bit size and type used to drill each portion of the hole; length and type of each material used to plug the well; length of casing(s) removed, perforated, ripped, or left in place; and other pertinent information concerning sealing the well. Invoices, work orders, and other records relating to all work on the well will be maintained as part of the journal and provided to MSHA on request.

(6) After plugging the well, plug the open portions of both holes from the bottom to the surface with Portland cement or a lightweight cement mixture.

(7) Embed steel turnings or other small magnetic particles in the top of the cement near the surface to serve as a permanent magnetic monument of the well. In the alternative, extend a 4½-inch or larger casing, set in cement, at least 36 inches above the ground level.



(8) A combination of the methods outlined in subparagraphs (d)(3) and (d)(4) may have to be used in a single well depending on the conditions of the hole and the presence of casings. The petitioner and DM would discuss the nature of each hole. The DM may require that more than one method be used.

e. The petitioner proposes to use the following procedures after approval has been granted by the DM to mine through a plugged or replugged well:

(1) Prior to cutting-through a plugged well, notify the DM or designee, representative of the miners, and the appropriate State agency in sufficient time for them to have a representative present.

(2) When using continuous mining machines, install drivage sites at the last open crosscut near the place to be mined to ensure intersection of the well. The drivage sites will not be more than 50 feet from the well. When using longwall mining methods, install drivage sites on 10-foot centers for a distance of 50 feet in advance of the well. The drivage sites will be installed in the headgate and tailgate.

(3) Firefighting equipment, including fire extinguishers, rock dust, and sufficient fire hose to reach the working face area of the mine-through (when either the conventional or continuous mining method is used), will be available and operable during each well mine-through. Locate the fire hose in the last open crosscut of the entry or room. Maintain the water line to the belt conveyor tailpiece along with a sufficient amount of fire hose to reach the farthest point of penetration on the section. When the longwall mining method is used, a hose to the longwall water supply is sufficient. All fire hoses will be connected and ready for use, but do not have to be charged with water during the cut-through.

(4) Keep available at the last open crosscut a supply of roof support and ventilation materials sufficient to ventilate and support around the well on cut-through. In addition, keep emergency plugs and suitable sealing materials available in the immediate area of the well intersection.

(5) Maintain minimum air quantities in the working face during the period from when mining within 50 feet of the well location until the post cut-through inspection, or mining progresses at least 50 feet past the well location will be specified in the approved ventilation plan.

(6) On the shift prior to mining through the well, service all equipment and check for permissibility.

(7) Calibrate the methane monitors on the longwall, continuous mining machine, or cutting machine and loading machine on the shift prior to mining through the well.

(8) When mining is in progress, test methane levels with a hand-held methane detector at least every 10 minutes from the time that mining with the continuous mining machine is within 30 feet of the well until the well is intersected and immediately prior to mining through it. No individual is allowed on the return side during the actual cutting process until the mine-through has been completed and the area examined and declared safe. All workplace examinations will be conducted on the return side of the shearer while the shearer is idle.

(9) Keep the working place free from accumulations of coal dust and coal spillages, and place rock dust on the roof, rib, and floor to within 20 feet of the face when mining through the well when using continuous or conventional mining methods.

Conduct rock dusting on longwall sections on the roof, rib, and floor up to both the headgate and tailgate gob.

(10) Deenergize all equipment when the wellbore is intersected and thoroughly examine the place and determine it safe before resuming mining. After a well has been intersected and the working place determined safe, mining will continue inby the well a sufficient distance to permit adequate ventilation around the area of the well.

(11) In rare instances, torches may be used for inadequately or inaccurately cut or milled casings at the coal seam level. No open flame is permitted in the area until adequate ventilation has been established around the wellbore and methane levels are less than 1.0 percent in all areas that will be exposed to flames and sparks from the torch. Apply a thick layer of rock dust to the roof, face, floor, ribs, and any exposed coal within 20 feet of the casing prior to any use of torches.

(12) Non-sparkling (brass) tools will be located on the working section and will be used to expose and examine cased wells.

(13) No person will be permitted in the area of the cut-through operation except those actually engaged in the mining operation, including mine management, representatives of miners, personnel from MSHA, and personnel from the appropriate State agency.

(14) A certified official will directly supervise the cut-through operation and only the certified official in charge will issue instructions concerning the cut-through operation.

(15) Within 60 days after this petition becomes final, the petitioner will submit proposed revisions for its approved part 48 training plan to the DM. These proposed

revisions will include initial and refresher training regarding compliance with the terms and conditions stated in the Order. The operator will provide all miners involved in the mine-through of a well with training regarding the requirements of this Order prior to mining within 150 feet of the next well intended to be mined through.

(16) The responsible person required in 30 CFR 75.1501 will be responsible for well intersection emergencies. The responsible person will review the well intersection procedures prior to any planned intersection.

(17) Within 60 days after this petition becomes final, the petitioner will submit proposed revisions for its approved mine emergency evacuation and firefighting plan required in 30 CFR 75.1501. The plan will include the hazards and evacuation procedures to be used for well intersections. All underground miners will be trained in this revised plan within 60 days of submittal of the revised evacuation plan.

The petitioner asserts that the proposed alternative method will at all times guarantee no less than the same measure or protection afforded by the existing standard.

Docket Number: M-2015-008-C.

Petitioner: Consolidation Coal Company, RD #1 Box 62A, Dallas, West Virginia 26036.

Mine: Shoemaker Mine, MSHA I.D. No. 46-01436, located in Marshall County, West Virginia.

Regulation Affected: 30 CFR 75.311(b)(2) and (3) (Main mine fan operation).

Modification Request: The petitioner requests a modification of the existing standard to allow the refuse belt to continue to operate during a fan outage other than the Dupont Fan. Management will monitor and prohibit the entrance of any miners or personnel underground at any time during the fan outages. The mine will follow the re-entry

requirements in 30 CFR for examinations and re-entry by mine personnel once all fans are operational. The petitioner states that:

(1) The Shoemaker Mine operates in the Pittsburgh #8 coal seam. The seam thickness averages 84 inches. The overburden averages 850 feet. The continuous miner and longwall sections are used to mine this coal seam. The mine currently has 730 employees.

(2) Coal extraction from the mine is transported via conveyor belt to the coal processing plant located on the surface. Rock and other impurities are separated from the coal at this location. The separated rock and impurities are termed “refuse or refuse material”.

(3) The refuse material which has been separated from the coal is then loaded onto another conveyor belt, hereinafter known as the refuse belt, which carries the refuse material back into and through a small portion of the mine, before exiting to the surface again. The refuse is then trans-loaded onto rubber tired vehicles which distribute the refuse throughout the approved refuse disposal site.

(4) The belt consists of a 30-inch flame resistant material required in 30 CFR Part 14. The belt travels from the preparation plant to the refuse site. The distance underground is approximately 4,000 feet.

(5) Removing the refuse belt from service due to a fan outage also prevents the coal processing plant from operating.

(6) The mine is ventilated with multiple main ventilation fans and the primary source of ventilation of the “refuse” belt is the Dupont main blowing fan. In the event of

an outage of any or all ventilation fans, the Dupont fan will remain in operation to provide adequate ventilation to the petitioned area.

(7) The procedures below will be used to monitor the belt on the surface at manned locations.

(a) The following procedures will be used for operating the refuse belt during a fan outage:

(1) The refuse belt is ventilated by the Dupont main blowing fan. The air enters the mine and splits on the belt and exits the mine at the River Portal and top of the Refuse Slope at Browns Run. The blowing system provides positive pressure on the beltline and surrounding areas. Air measurements recorded at the two belt openings where air exits the mine will be monitored with a velometer. If at any time the Dupont main blowing fan becomes inoperative then the refuse belt will be deenergized by a remote system from a surface location.

(2) The beltline will be monitored on the surface at manned locations where audible and visual signals can be heard or seen. An intrinsically safe monitoring system capable of detection and monitoring of carbon monoxide, oxygen, methane and velocity will be installed and maintained along the refuse belt as indicated below:

(i) Carbon monoxide sensors will be installed near the center in the upper third of the entry, in a location that does not expose personnel working on the system to unsafe conditions. Sensors will not be located in abnormally high areas or in other locations where airflow patterns do not permit products of combustion to be carried to the sensors.

(ii) The carbon monoxide sensor location intervals will not exceed 1,000 feet along the belt entry and not more than 100 feet downwind of the belt tailpiece transfer.

(iii) Oxygen and methane sensors will be installed near the center of the entry, at least 12 inches from the roof, ribs, and floor, in a location that would not expose personnel working on the system to unsafe conditions. The sensor will be located where the ventilating current enters the refuse belt entry at Survey Station 12+50.

(iv) Velometers will be installed at the two locations where air used to ventilate the Refuse Belt exits the mine.

(v) The sensors will automatically provide visual and audible signals at the surface locations for any interruption of circuit continuity and any electrical malfunction of the system. These signals must be of sufficient magnitude to be seen or heard by the designated person at the surface locations.

(vi) The sensors will automatically provide visual and audible signals at the designated surface locations when carbon monoxide concentration levels reach alarm (10 PPM), (the Ambient CO Level for the entry will be zero); methane concentration levels reach alarm at 1.0 percent at any sensor; oxygen concentration levels drop below and reach alarm at 19.5 percent; or velocities drop under 50 FPM and reach alarm.

(vii) If at any time any segment of the monitoring system reaches alarm status the belt will be deenergized.

(8) The sensors will be installed and maintained by personnel trained in the installation and maintenance of the system. The system will be maintained in proper operating condition.

(9) Sensors used to monitor for carbon monoxide and methane will be of a type listed and installed in accordance with the recommendations of a nationally recognized

testing laboratory approved by the Secretary, or will be of a type, and installed in a manner approved by the Secretary.

(10) At least once each shift when belts are operated as part of a production shift, sensors used to detect carbon monoxide will be visually examined.

(11) At least once every seven days alarms for the installed monitoring system will be functionally tested for proper operation.

(12) At intervals not to exceed 31 days, each carbon monoxide sensor will be calibrated in accordance with the manufacturer's calibration specifications. Calibration will be done with a known concentration of carbon monoxide in air sufficient to activate the alarm.

(13) Each methane sensor installed will be calibrated in accordance with the manufacturer's calibration specifications. Calibration will be done with a known concentration of methane in air sufficient to activate an alarm.

(14) If the alarm signals are activated during calibration of sensors, the designated person will be notified prior to and upon completion of calibration.

(15) Gases used for the testing and calibration of sensors will be traceable to the National Institute of Standards and Technology reference standard for the specific gas. When these reference standards are not available for a specific gas, calibration gases will be traceable to an analytical standard which is prepared using a method traceable to the National Institute of Standards and Technology. Calibration gases must be within  $\pm 2.0$  percent of the indicated gas concentration.

(16) A record of the date, time, location and type of sensor, and the cause for the activation will be recorded if an alarm occurs.



(17) If a sensor malfunctions, the date, the extent and cause of the malfunction, and the corrective action taken to return the system to proper operation will be recorded.

(18) A record of the seven-day tests of alert and alarm signals, calibrations, and maintenance of the sensors will be made by the person(s) performing these tests.

(19) The person(s) entering the recordings will include their name, date, and signature in the record.

(20) The records required by this section will be kept either in a secure book that is not susceptible to alteration, or electronically in a computer system that is secure and not susceptible to alteration. These records will be maintained separately from other records and identifiable by a title, such as the "Sensor Log".

(21) Records will be retained for at least one year at a surface location at the mine and made available for inspection by miners and authorized representatives of the Secretary.

(22) The Intrinsically Safe Fire Sensor and Warning System will be comprised of components from Conspec Controls, Inc., or equivalent parts or manufacture.

(23) The system will consist of intrinsically safe components. The following components will be the only electrical components present underground on the refuse belt:

(a) Belt Conveyor On/Off switches every 1,000 feet with an intrinsically safe system. A total of 6 switches are present along the beltline.

(b) The belt controls including belt switches and chute plug switch will be controlled by SMC C1570 IS Relays with diodes. The sequence switch will go through

an IS barrier (BWI EAGLE 10-7072 IS Zenner Barrier) to an IS proximity switch (BWI EAGLE 10-7039 IS Prox Sensor).

(c) The refuse and slope belt drives and associated electrical components are located outside on the surface at Browns Run and the River Portal.

Within 60 days after this Petition is granted, the petitioner will submit proposed revisions for its approved part 48 training plan to the District Manager. The proposed revisions will specify initial and refresher training regarding the alternative method outlined in this petition and the terms and conditions stated in the Proposed Decision and Order.

Docket Number: M-2015-009-C.

Petitioner: Consolidation Coal Company, RD #1 Box 62A, Dallas, West Virginia 26036.

Mine: Shoemaker Mine, MSHA I.D. No. 46-01436, located in Marshall County, West Virginia.

Regulation Affected: 30 CFR 75.313(c)(2) and (3) (Main mine fan stoppage with persons underground).

Modification Request: The petitioner requests a modification of the existing standard to allow the refuse belt to continue to operate during a fan outage, other than the Dupont Fan. Management will monitor and prohibit the entrance of any miners or personnel underground at any time during the fan outages. The mine will follow the re-entry requirements in 30 CFR for examinations and re-entry by mine personnel once all fans are operational. The petitioner states that:

(1) The Shoemaker Mine operates in the Pittsburgh #8 coal seam. The seam thickness averages 84 inches. The overburden averages 850 feet. The continuous miner

and longwall sections are used to mine this coal seam. The mine currently has 730 employees.

(2) Coal extraction from the mine is transported via conveyor belt to the coal processing plant located on the surface. Rock and other impurities are separated from the coal at this location. The separated rock and impurities are termed “refuse or refuse material”.

(3) The refuse material which has been separated from the coal is then loaded onto another conveyor belt, hereinafter known as the refuse belt, which carries the refuse material back into and through a small portion of the mine, before exiting to the surface again. The refuse is then trans-loaded onto rubber tired vehicles which distribute the refuse throughout the approved refuse disposal site.

(4) The belt consists of a 30-inch flame resistant material required in 30 CFR Part 14. The belt travels from the preparation plant to the refuse site. The distance underground is approximately 4,000 feet.

(5) Removing the refuse belt from service due to a fan outage also prevents the coal processing plant from operating.

(6) The mine is ventilated with multiple main ventilation fans and the primary source of ventilation of the “refuse” belt is the Dupont main blowing fan. In the event of an outage of any or all ventilation fans, the Dupont fan will remain in operation to provide adequate ventilation to the petitioned area.

(7) The procedures below will be used to monitor the belt on the surface at manned locations.

(a) The following procedures will be used for operating the refuse belt during a fan outage:

(1) The refuse belt is ventilated by the Dupont main blowing fan. The air enters the mine and splits on the belt and exits the mine at the River Portal and top of the refuse slope at Browns Run. The blowing system provides positive pressure on the beltline and surrounding areas. Air measurements recorded at the two belt openings where air exits the mine will be monitored with a velometer. If at any time the Dupont main blowing fan becomes inoperative then the refuse belt will be deenergized by a remote system from a surface location.

(2) The beltline will be monitored on the surface at manned locations where audible and visual signals can be heard or seen. An intrinsically safe monitoring system capable of detection and monitoring of carbon monoxide, oxygen, methane and velocity will be installed and maintained along the refuse belt as indicated below:

(i) Carbon monoxide sensors will be installed near the center in the upper third of the entry, in a location that does not expose personnel working on the system to unsafe conditions. Sensors will not be located in abnormally high areas or in other locations where airflow patterns do not permit products of combustion to be carried to the sensors.

(ii) The carbon monoxide sensor location intervals will not exceed 1,000 feet along the belt entry and not more than 100 feet downwind of the belt tailpiece transfer.

(iii) Oxygen and methane sensors will be installed near the center of the entry, at least 12 inches from the roof, ribs, and floor, in a location that would not expose personnel working on the system to unsafe conditions. The sensor will be located where the ventilating current enters the refuse belt entry at Survey Station 12+50.

(iv) Velometers will be installed at the two locations where air used to ventilate the refuse belt exits the mine.

(v) The sensors will automatically provide visual and audible signals at the surface locations for any interruption of circuit continuity and any electrical malfunction of the system. These signals must be of sufficient magnitude to be seen or heard by the designated person at the surface locations.

(vi) The sensors will automatically provide visual and audible signals at the designated surface locations when carbon monoxide concentration levels reach alarm (10 PPM), (the Ambient CO Level for the entry will be zero); methane concentration levels reach alarm at 1.0 percent at any sensor; oxygen concentration levels drop below and reach alarm at 19.5 percent; or velocities drop under 50 FPM and reach alarm.

(vii) If at any time any segment of the monitoring system reaches alarm status the belt will be deenergized.

(8) The sensors will be installed and maintained by personnel trained in the installation and maintenance of the system. The system will be maintained in proper operating condition.

(9) Sensors used to monitor for carbon monoxide and methane will be of a type listed and installed in accordance with the recommendations of a nationally recognized testing laboratory approved by the Secretary, or will be of a type, and installed in a manner approved by the Secretary.

(10) At least once each shift when belts are operated as part of a production shift, sensors used to detect carbon monoxide must be visually examined.

(11) At least once every seven days alarms for the installed monitoring system will be functionally tested for proper operation.

(12) At intervals not to exceed 31 days, each carbon monoxide sensor will be calibrated in accordance with the manufacturer's calibration specifications. Calibration will be done with a known concentration of carbon monoxide in air sufficient to activate the alarm.

(13) Each methane sensor installed will be calibrated in accordance with the manufacturer's calibration specifications. Calibration will be done with a known concentration of methane in air sufficient to activate an alarm.

(14) If the alarm signals are activated during calibration of sensors, the designated person will be notified prior to and upon completion of calibration.

(15) Gases used for the testing and calibration of sensors will be traceable to the National Institute of Standards and Technology reference standard for the specific gas. When these reference standards are not available for a specific gas, calibration gases will be traceable to an analytical standard which is prepared using a method traceable to the National Institute of Standards and Technology. Calibration gases must be within  $\pm 2.0$  percent of the indicated gas concentration.

(16) A record of the date, time, location and type of sensor, and the cause for the activation will be recorded if an alarm occurs.

(17) If a sensor malfunctions, the date, the extent and cause of the malfunction, and the corrective action taken to return the system to proper operation will be recorded.

(18) A record of the seven-day tests of alert and alarm signals, calibrations, and maintenance of the sensors will be made by the person(s) performing these actions.

(19) The person(s) entering the record must include their name, date, and signature in the record.

(20) The records required by this section will be kept either in a secure book that is not susceptible to alteration, or electronically in a computer system that is secure and not susceptible to alteration. These records will be maintained separately from other records and identifiable by a title, such as the “Sensor Log”.

(21) Records will be retained for at least one year at a surface location at the mine and made available for inspection by miners and authorized representatives of the Secretary.

(22) The Intrinsically Safe Fire Sensor and Warning System will be comprised of components from Conspec Controls, Inc., or equivalent parts or manufacture.

(23) The system will consist of intrinsically safe components. The following components will be the only electrical components present underground on the refuse belt:

(a) Belt conveyor on/off switches every 1,000 feet with an intrinsically safe system. A total of 6 switches are present along the beltline.

(b) The belt controls including belt switches and chute plug switch will be controlled by SMC C1570 IS Relays with diodes. The sequence switch will go through an IS barrier (BWI EAGLE 10-7072 IS Zenner Barrier) to an IS proximity switch (BWI EAGLE 10-7039 IS Prox Sensor).

(c) The refuse and slope belt drives and associated electrical components are located outside on the surface at Browns Run and the River Portal.

Within 60 days after this Petition is granted, the petitioner will submit proposed revisions for its approved part 48 training plan to the District Manager. The proposed revisions will specify initial and refresher training regarding the alternative method outlined in this petition and the terms and conditions stated in the Proposed Decision and Order.

Docket Number: M-2015-010-C.

Petitioner: Coyote Creek Mining Company, LLC, 6502 17<sup>th</sup> Street SW, Zap, North Dakota 58580.

Mine: Coyote Creek Mine, MSHA I.D. No. 32-01028, located in Mercer County, North Dakota.

Regulation Affected: 30 CFR 77.803 (Fail safe ground check circuits on high-voltage resistance grounded systems).

Modification Request: The petitioner requests a modification of the existing standard to permit an alternative method of compliance when the boom/mast is raised or lowered during necessary repairs. The petitioner states that:

(1) Some stages of assembly/disassembly of draglines require special consideration when the boom/mast is raised/lowered into position.

(2) The boom is raised/lowered utilizing the on-board VFD hoist drive and AC drive motors. This process is critical because power to the machine must not be interrupted. Power loss conditions may result in the boom becoming uncontrolled, falling, and possible injuries to workers. To address this condition, the petitioner proposes to use the following guidelines to help prevent loss of power to the machine. This procedure only addresses raising/lowering the boom on draglines utilizing the



machine's electrical onboard VFD hoist drive and AC drive motors. It does not replace other mechanical precautions or the requirements of 30 CFR 77.405(b) that are necessary to safely secure booms/masts during construction or maintenance procedures.

The petitioner proposes to use the following procedure for "boom raising" or "boom lowering" at the Coyote Creek Mine. During this period of construction and maintenance the machine will not be performing mining operations. This procedure will also be applicable in instances of disassembly or major maintenance that require the boom to be raised/lowered. The following guidelines will be used to minimize the potential for electrical power loss during this critical boom procedure:

- (1) The petitioner proposes to initially use the procedure to raise the boom on the Marion 8400 dragline, which is currently being reconstructed, and would most likely only use this procedure during disassembly or major maintenance in the future.

- (2) Major maintenance requiring the raising/lowering of the boom/mast would only be performed on an as needed basis, which could span long periods of time.

Therefore, training and review of the procedure would only be conducted prior to this need. At such time, all persons involved in the process would be trained and retrained.

The petitioner states that:

- (1) Coyote Creek employees, its contractors, and affected persons will be trained on the requirements of the procedure at the mine.

- (2) The procedure will be coordinated by a Coyote Creek Mine maintenance supervisor and, if present, the contractor's representative will assist. At least two MSHA qualified electricians will be present at all times during the procedure.

(3) The number of persons required on board the machine will be limited. An MSHA qualified electrician, dragline operator, and the dragline oiler will be permitted on the machine. The Coyote Creek maintenance supervisor and contractor's representative may either be on board or at a location on the ground to assist in the coordination.

(4) The affected area under the boom will be secured to prevent persons from entering and/or contacting the frame of the machine during the "boom raising/lowering". The area will be secured and only those persons identified in Item #3 will be permitted inside the secured area. At no time will anyone be permitted under the boom or close to the boom.

(5) Communication between the dragline operator, the MSHA qualified electrician at the dragline, the MSHA qualified electrician at the substation, the Coyote Creek maintenance supervisor, and the contractor's representative, if present, will be a dedicated channel on the company's two-way radio.

(6) An MSHA qualified electrician will complete an examination of all electrical components that will be energized. The examination will be done within two hours prior to the boom raising/lowering process. A record of this examination will be made available to interested parties. The machine will be deenergized to perform this examination.

(7) After the examination is completed, the electrical components necessary to complete the boom raising/lowering process will be energized to assure they are operating properly as determined by an MSHA qualified electrician. When completed, the machine will be deenergized and locked out.

(8) The ground fault and ground check circuits will be disabled provided:

(a) The internal grounding conductor of the trailing cable has been tested and is continuous from the frame of the dragline to the grounding resistor located at the substation. Utilizing the ground check circuit and disconnecting the pilot circuit at the machine frame, and verifying the circuit breaker cannot be closed, will be an acceptable test. Resistance measurements will also be used to assure the ground conductor is continuous. The grounding resistor will be tested to assure it is properly connected, is not open, or is not shorted.

(b) Normal short circuit protection will be provided at all times. The over current relay setting may be increased up to 100 percent above its normal setting.

(9) During the boom raising/lowering procedure an MSHA qualified electrician will be positioned at the substation dedicated to monitor the grounding circuit. The MSHA qualified electrician will be able to detect a grounded phase condition or an open ground wire condition. The MSHA qualified electrician at the substation will at all times maintain communications with an MSHA qualified electrician at the dragline. If a grounded phase condition or an open ground wire should occur during the process, the MSHA qualified electrician at the substation will notify the MSHA qualified electrician at the dragline. All persons on board the machine must be aware of the condition and must remain on board the machine. The boom must be lowered to the ground or controlled and electrical circuit deenergized, locked and tagged out. The circuit must remain deenergized until the condition is corrected. The ground fault and ground check circuits will be reinstalled prior to reenergizing and testing the machine. Once circuits have been tested and no adverse conditions are present, the boom raising/lowering procedure, as outlined above, will be resumed.

(10) During the construction/maintenance procedure, persons cannot get on or off the dragline while the ground check ground fault circuits are disabled unless the circuit is deenergized, locked and tagged out as verified by the MSHA qualified electrician at the substation.

(11) After the boom raising/lowering is completed, the MSHA qualified electrician at the substation will restore all the protective devices to their normal state. When this has been completed, the MSHA qualified electrician at the substation will notify the dragline that all circuits are in their normal state. At this time normal work procedures can begin.

The petitioner asserts that this proposed alternative method of the existing standard will not result in a diminution of safety to the miners affected.

Dated: April 27, 2015.

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Sheila McConnell,  
Acting Director,

Office of Standards, Regulations, and Variances.

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